



Smallpox

What should I know about smallpox?

Smallpox is a serious, contagious disease caused by variola virus, and marked by fever and a characteristic skin rash. Death may occur in up to 30% of cases, and many survivors are left with permanent scars (especially on the face).

In 1980, naturally occurring smallpox was declared eradicated following worldwide vaccination programs. However, there remains the possibility that terrorists could have stocks of smallpox virus, and could deliberately release this virus as part of a terrorist attack. In response, public health officials and medical providers are now taking precautions to be ready to deal with such an attack if it were to take place.

What are the symptoms of smallpox?

Symptoms begin with high fever, head and body aches, and sometimes vomiting. A rash follows that spreads and progresses to raised bumps and pus-filled blisters that crust, scab, and fall off after about 3-4 weeks, leaving scars.

If someone is infected with the smallpox virus, how long does it take to show symptoms?

After exposure, it takes between 7 and 17 days for symptoms of smallpox to appear (the average time is 12-14 days). During this time, the infected person feels fine and is not contagious.

Is there any treatment for smallpox?

There is no proven treatment for smallpox, but patients can benefit from supportive therapy (for example, intravenous fluids, medicine to control fever or pain) and antibiotics for any secondary bacterial infections that may occur. Research to evaluate new antiviral agents for treating smallpox is ongoing. Early results suggest the drug cidofovir might be useful, although this has not been proven, and cidofovir has potentially serious side effects.

How is smallpox spread?

Smallpox normally spreads through contact with infected persons. Generally, direct and fairly prolonged face-to-face contact is required for spread to occur. Smallpox also can be spread through direct contact with infected bodily fluids or contaminated objects such as bedding or clothing. Rarely, smallpox has been spread through the air over longer distances in enclosed settings such as buildings, buses, and trains. Smallpox is not known to be transmitted by insects or animals.

When does a person with smallpox become contagious to others?

A person with smallpox is sometimes contagious with onset of fever, but he or she becomes most contagious with the onset of rash. The infected person is contagious until the last smallpox scab falls off (usually 3-4 weeks after rash onset).

What is smallpox vaccine?

Smallpox vaccine is made from a virus called vaccinia, which is another “pox”-type virus related to smallpox. The vaccine cannot cause smallpox. Smallpox vaccine is the only way to prevent smallpox. It was successfully used to eradicate smallpox from the human population.

How long does a smallpox vaccination last?

Past experience indicates that the first dose of the vaccine offers protection from smallpox for 3-5 years, with decreasing immunity thereafter. If a person is vaccinated again later, immunity lasts longer.

Ready in 3 is an emergency-preparedness program for Missouri. The Missouri Department of Health and Senior Services sponsors the program. **Ready in 3** aims to help residents and communities prepare for many types of emergencies from tornadoes to terrorism. For more information, visit www.dhss.mo.gov.

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If someone is exposed to smallpox, is it too late to get a vaccination?

Vaccination within 3 days of exposure will completely prevent or significantly modify smallpox in the vast majority of persons. Vaccination 4-7 days after exposure likely offers some protection from disease or may modify the severity of disease.

If I am concerned about a smallpox attack, can I go to my doctor and get the smallpox vaccine?

Routine vaccination of the American public against smallpox stopped in 1972 after the disease was eradicated in the United States. Smallpox vaccine is not currently available for members of the general public. In the event of a smallpox outbreak, however, there is enough smallpox vaccine to vaccinate everyone who would need it.

What should I do if cases of smallpox start to occur in my community?

Local and state public health officials will provide you with the information you will need.

Adapted from CDC. *Smallpox Questions and Answers: The Disease and the Vaccine*. March 31, 2003.